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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,064	12/03/2004	Luc Moens	2004-1911A	8726

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WENDEROTH, LIND & PONACK, L.L.P.
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WASHINGTON, DC 20006-1021

EXAMINER

TOSCANO, ALICIA

ART UNIT	PAPER NUMBER
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1712

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/517,064	Applicant(s) MOENS ET AL.	
	Examiner Alicia M. Toscano	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/3/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 13-21 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moens (US 5397641) in view of Kaplan (US 6313234).

Moens discloses thermosetting powder compositions. Typical thermosetting powder compositions are disclosed in Column 1 Lines 34-43. Thermosetting powder compositions containing a carboxyl group containing polyester and glycidyl group containing acrylic copolymers or beta-hydroxyalkylamides have good weatherability (Column 1 Line 6-Column 2 Line 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a combination of the acrylic copolymer and the beta-hydroxyalkylamide, taught for the same purpose by the reference, as a curing agent in the polyester composition of Moen to obtain a powder coating composition

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having good weatherability properties. See *In re Kirkhoven* 205 USPQ 1069 (CCPA 1980).

Moens discloses the carboxyl group polyester to comprise 75 mol% terephthalic acid, 10 mol% 1,3-cyclohexanedicarboxylic acid and 14 mol% of at least one other polycarboxylic acid. (Column 2 Lines 66-Column 3 Line 2). The other polycarboxylic acid may be isophthalic acid (Column 4 Line 54). The diol may be neopentyl glycol (Column 5 Line 6). Said composition meets the requirements of the carboxyl polyester of Claims 13, 14, 15, 16 and 17. The molecular weight of the polyester is from 1500 to 12000 (Column 6 Lines 29-30), the acid number is 30-150 mg of KOH and the ICI viscosity is from 0.1-15 Pa.s. As the composition requirements and three of the four properties of Claim 18 are met, Examiner finds the Tg range of Claim 18 to be inherent, thus meeting all the limitations of Claim 18. The molecular weight, as discussed, meets the limitations of Claim 19.

Moens discloses the glycidyl group containing acrylic polymer to be obtained from 45-75 wt% glycidyl methacrylate and the like (Column 6 Lines 35-38) and at least 5 to 55 wt% one other methacrylic monomer, such as acrylic acid (Column 6 Line 55). The molar percentages are not disclosed, however it is the Examiners position that since this weight range meets the limitations of Claim 13 it inherently encompasses the molar range disclosed in Claim 20. The Tg of the glycidyl acrylic polymer is 50-130C and the number average molecular weight is from about 2000 to about 8000 (Column 7 Lines 13-33). The ICI viscosity is not disclosed, however as the composition, molecular

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weight and Tg requirements have been met, it is the Examiners position that the ICI viscosity is inherent in Moens, thus meeting the limitations set forth in Claim 21.

Fillers are disclosed to include ultraviolet absorbing compounds, flow control agents, degassing agents and pigments (Column 8 Lines 19-48), as required by Claim 26.

Moens does not disclose a specific beta-hydroxyalkylamine or the amount useful for the composition. Kaplan discloses heat settable coating systems. Said systems comprise a carboxyl functional polyester and a curing agent of a beta-hydroxyalkylamide (abstract). Said beta-hydroxyalkylamide may be bis[N,N'-di(beta-hydroxyethyl)]adipamide (Column 2 Line 63). The beta-hydroxyalkylamide is used in an amount from 3.5-5 wt% of the composition (Table 1). This amount of beta-hydroxyalkylamine results in a coating with the desired impact resistance (Table 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Moens, the use of bis[N,N'-di(beta-hydroxyethyl)]adipamide, as taught by Kaplan, since bis[N,N'-di(beta-hydroxyethyl)]adipamide is a species of the genus taught by Moens. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in Moens, the use of 3.5-5 wt% beta-hydroxyalkylamine, as taught by Kaplan, in order to obtain a cured coating with superior hardness. Thus all the requirements of Claims 13, 23, 24 and 25 are met.

2. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moens and Kaplan in view of Hoebeke (US 5525370).

Moens and Kaplan include elements of the invention as discussed above.

Moens and Kaplan do not explicitly disclose the use of a Mn of 10000 or greater for the glycidyl acrylate polymer.

Hoebeke discloses powder coating compositions comprising a polyester and a glycidyl acrylate binder (abstract). The Mn of the glycidyl acrylate binder is disclosed to be between 4000-10000 (abstract). This inclusion of the a glycidyl acrylate polymer within this Mn range is disclosed to be essential in order to create a coating with good appearance, adhesion and weathering resistance (Column 5 Lines 52-54).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Moens and Kaplan, the use of a Mn from 4000-10000, as taught by Hoebeke, in order to create a coating with superior appearance, adhesion and weathering.

3. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moens and Kaplan in view of Knoops (WO 02055620).

Moens and Kaplan include elements of the invention as discussed above.

Moens and Kaplan do not include the use of a Mn of greater than 10000 for the glycidyl acrylate polymer.

Knoops discloses powdered thermosetting compositions comprising a polyester and a glycidyl acrylate polymer (abstract). Said glycidyl acrylate polymer has a Mn ranging from 10000 to 25000 (pg 9 Line 14). Examples 29 and 30 disclose compositions with a glycidyl acrylate polymer Mn of 15000 and 9300 respectively. The

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low Mn glycidyl acrylate polymer results in a high gloss finish, whereas the high Mn glycidyl acrylate polymer results in a matte finish (pg 21 Lines 29-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Moens and Kaplan, the use of a Mn of 10000-25000, as taught by Knoops, in order to create a powder coating with a matte finish.

Conclusion

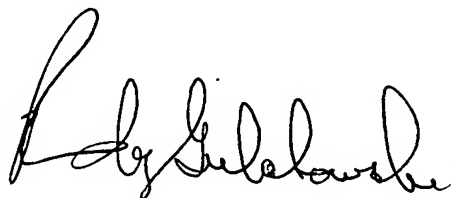
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is 571-272-2451. The examiner can normally be reached on Monday to Friday 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMT

A handwritten signature in black ink, appearing to read 'Randy Gulakowski', is positioned above the printed name and title.

RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700